https://www.drdo.gov.in

DRDO CONDUCTS SUCCESSFUL HIGH-SPEED ROCKET-SLED TEST OF FIGHTER AIRCRAFT ESCAPE SYSTEM

ISSN: 0971-4391

JANUARY 2026 | VOLUME 46 | ISSUE 1







Editor-in-Chief: Kiran Chauhan

Associate Editor-in-Chief: Sudhanshu Bhushan

Editor: Dipti Arora

Chandigarh

Design & Pre-press: Raj Kumar Printing: Rajesh Kr Singh Distribution: Pratyaksh Sharma JANUARY 2026 | VOLUME 46 | ISSUE 1

46th Year of Publication

LABORATORY CORRESPONDENTS

Agra : Shri Gayasuddin Quraishi, Aerial Delivery Research and Development establishment (ADRDE)

Ahmednagar: Shri RA Shaikh, Vehicle Research and Development Establishment (VRDE)

Ambernath

: Dr Ganesh S Dhole, Naval Materials Research Laboratory (NMRL)

Balasore

: Shri Mrinal Goswami, Integrated Test Range (ITR)

Shri Ratnakar S Mohapatra, Proof & Experimental Establishment (PXE)

Bengaluru : Shri Sriram GN, Aeronautical Development Establishment (ADE)
Smt MR Bhuvaneswari, Centre for Airborne Systems (CABS)

Smt Faheema AGJ, Centre for Artificial Intelligence & Robotics (CAIR)

Dr Josephine Nirmala M, Combat Aircraft Systems Development & Integration Centre (CASDIC)

Shri Jitender Kumar & Shri Vedang Chauhan, Centre for Military Airworthiness & Certification (CEMILAC) Dr Sanchita Sil & Dr Sudhir S Kamble, Defence Bioengineering & Electromedical Laboratory (DEBEL)

Dr V Senthil, Gas Turbine Research Establishment (GTRE)

Smt Saima Bashir, Electronics & Radar Development Establishment (LRDE) Ms Mita Jana, Microwave Tube Research & Development Centre (MTRDC) Dr Pal Dinesh Kumar, Terminal Ballistics Research Laboratory (TBRL)

: Dr Anuja Kumari, Defence Geoinformatics Research Establishment (DGRE)

Chennai : Shri K Anbazhagan, Combat Vehicles Research & Development Establishment (CVRDE)

Dehradun : Shri Sachin Oberai, Defence Electronics Applications Laboratory (DEAL)

Shri JP Singh, Instruments Research & Development Establishment (IRDE)

Delhi : Shri Vikas Kashyap, Centre for Personnel Talent Management (CEPTAM)
Shri Vishal Dwivedi, Centre for Fire, Explosive & Environment Safety (CFEES)

Dr KP Mishra, Defence Institute of Physiology & Allied Sciences (DIPAS)

Shri Santosh Kumar Choudhury, Defence Institute of Psychological Research (DIPR) Dr Navin Kumar Soni, Institute of Nuclear Medicine and Allied Sciences (INMAS)

Dr Sujata Dash, Institute for Systems Studies & Analyses (ISSA) Ms. Sugandha Aggarwal, Recruitment & Assessment Centre (RAC)

Shri Ashok Kumar, Scientific Analysis Group (SAG)

Dr Rupesh Kumar Chaubey, Solid State Physics Laboratory (SSPL)

Gwalior: Dr MK Meghvansi, Defence R&D Establishment (DRDE)

Haldwani
 Dr Atul Grover, Defence Institute of Bio-Energy Research (DIBER)
 Hyderabad
 Dr A Nagendranath, Advanced Systems Laboratory (ASL)

Shri Srinivas Juluru, Defence Research and Development Laboratory (DRDL)
Shri Ch Narasimhachari, Defence Electronics Research Laboratory (DLRL)

Shri S Shashi Nath, Defence Metallurgical Research Laboratory (DMRL)

Jagdalpur

Shri Khilawan Singh, SF Complex (SFC)

Shri DK Tripathi, Defence Laboratory (DL)

Kanpur: Dr Mohit Katiyar, Defence Materials & Stores Research & Development Establishment (DMSRDE)

Kochi
: Smt Letha MM, Naval Physical & Oceanographic Laboratory (NPOL)
Leh
: Dr Dorjey Angchok, Defence Institute of High Altitude Research (DIHAR)
Mussoorie
: Shri Sunil Bhandari, Institute of Technology Management (ITM)

Mysuru : Dr M Palmurugan, Defence Institute of Bio-defence Technologies (DIBT)

Nasik : Shri Ashutosh Sharma, Advanced Centre for Energetic Materials (ACEM)

Pune : Shri Ajay K Pandey, Armament Research and Development Establishment (ARDE)

Dr Ganesh Shankar Dombe, High Energy Materials Research Laboratory (HEMRL)

Dr Anoop Anand, Research and Development Establishment (E) (R&DE)

Tezpur: Dr KS Nakhuru, Defence Research Laboratory (DRL)

Visakhapatnam: Smt Jyotsna Rani, Naval Science & Technological Laboratory (NSTL)



डॉ. समिर वी. कामत Dr. Samir V. Kamat



संचिव, रक्षा अनुसंघान तथा विकास विगाग एवं अध्यक्ष, डीआरडीओ Secretary, Department of Defence R&D & Chairman, DRDO

With the New Year before us, it is a moment to reflect on our journey so far and look ahead with renewed hope, confidence, and purpose. The beginning of another year offers an opportunity to reaffirm our commitment to excellence, innovation and national service as DRDO continues to play a pivotal role in strengthening India's defence and strategic capabilities.

The DRDO Newsletter, a house bulletin of the Defence Research and Development Organisation (DRDO), holds a special place in the DRDO family. It brings together the work, achievements and aspirations of laboratories, scientists and institutions spread across the country, serving as a unifying platform for sharing knowledge and progress.

For the past 45 years, the DRDO Newsletter has been published continuously and successfully, emerging as a trusted medium for the timely dissemination of information. Over the decades, it has played an important role in ensuring that significant developments from DRDO laboratories and establishments reach a wide readership. Growing alongside the organisation, the Newsletter has become a familiar and reliable source of information not only for the DRDO community but also for stakeholders beyond the organisation.

One of the enduring strengths of the DRDO Newsletter lies in its wide coverage and reach. It is read not only within DRDO but also by academic institutions, universities, researchers, government departments and other stakeholders, making it an important reference point for those interested in India's defence research and development ecosystem.

As we step into the New Year, we do so with optimism, fresh ideas and a renewed sense of purpose. May the year ahead bring new opportunities, innovative thinking and continued success in our collective endeavors.

I extend my best wishes to all readers for a productive, inspiring and successful New Year 2026.

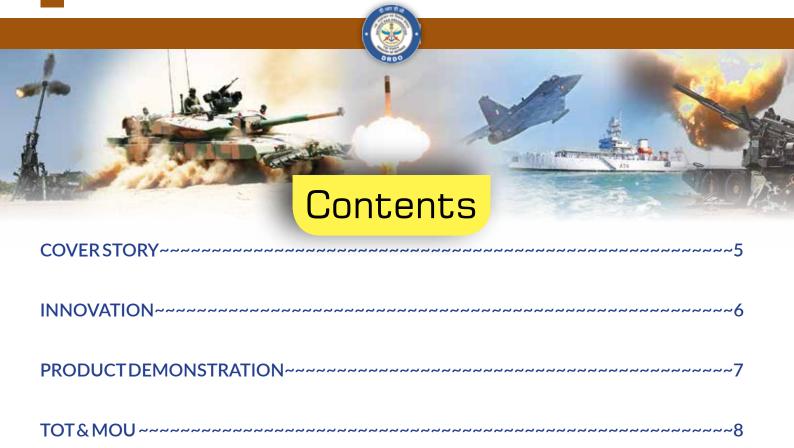
Date: 24Dec 2025 Place: New Delhi

Scannet

(Dr. Samir V. Kamat)

रक्षा मंत्रालय, रक्षा अनुसंघान तथा विकास विभाग, खीआरडीओ भवन, नई दिल्ली-110011 Ministry of Defence, Department of Defence R&D, DRDO Bhawan, Rajaji Marg, New Delhi-110011 दूरमाण/Phone: 011-23011519, 23014350 फैक्स/Fax: 011-23018216 ई-मेल/E-mail: secydrdo@gov.in

3



> Please mail your feedback and suggestions at: director.desidoc@gov.in; drdonl.desidoc@gov.in; Contact at: 011-23902403; 23902472; Fax: 011-23819151



DRDO CONDUCTS SUCCESSFUL HIGH-SPEED ROCKET-SLED TEST OF FIGHTER AIRCRAFT ESCAPE SYSTEM

efence Research and Development Organisation (DRDO) conducted successful has a high-speed rocket-sled test of a fighter aircraft escape system at controlled velocity. The test at the Rail Track Rocket Sled facility of the Terminal Ballistics Research Laboratory (TBRL), Chandigarh, validated canopy severance, ejection sequencing, and complete aircrew recovery.

The test was conducted in collaboration with the Aeronautical Development Agency (ADA) and Hindustan Aeronautics Limited (HAL). This complex dynamic test places India in an elite club of nations with advanced in-house testing capabilities for

escape systems.

Dynamic ejection tests are significantly more complex than static tests such as the Net test or Zero-Zero test and are a real measure for evaluating ejection seat performance and the efficacy of the canopy severance system. A dual-sled system with the Light Combat Aircraft (LCA) aircraft forebody was propelled to precisely controlled velocity through the phased firing of multiple solid propellant rocket motors.

The canopy fragilization pattern, ejection sequencing, and complete aircrew recovery process were simulated using an instrumented anthropomorphic test dummy, which recorded critical loads, moments, and accelerations that would experienced by ejected pilots. The entire sequence was captured through onboard and groundbased imaging systems. The test was witnessed by the officials from the Indian Air Force (IAF) and the Institute of Aerospace Medicine & Certification. Hon'ble Raksha Mantri Shri Rainath Singh complimented DRDO, IAF, ADA, HAL, and industry for the successful test. He described it as a significant milestone for India's indigenous defence capability towards self-reliance. Secretary, Department of Defence R&D and Chairman DRDO Dr Samir V Kamat, also congratulated the DRDO team associated with this successful demonstration.





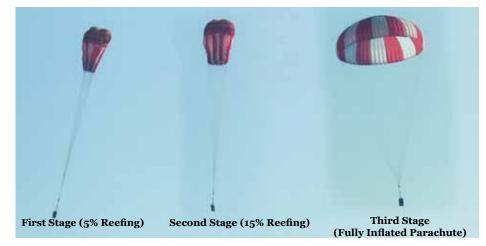
DEVELOPMENT OF TWO STAGE REEFED PARACHUTE FOR MISSION GAGANYAAN BY ADRDE

Aerial Delivery Research and Development establishment (ADRDE), Agra and Vikram Sarabhai Space Center (VSSC), Thiruvananthapuram, signed a MoU for development of deceleration System for recovery of the crew module for Gaganyaan mission. As a part of MoU, a series of tests were conducted. Twostage reefed main parachute has been first time developed to cater the requirement of Gaganyaan and beyond. The two-stage reefing will limit the inflation loads which will lead to optimize the parachute material and reduce the overall mass of deceleration system. It will ensure significant mass saving of parachutes and associated components in space missions.

The laboratory conducted its maiden aerial drop test of Main

parachute (Ø 25 m) for Gaganyaan mission with two-stage reefing. This is first time in India, that two stage reefing was used in any parachute. It is important to note that the reefing of a parachute is the method of controlled inflation of parachute canopy in order to reduce the parachute inflation loads significantly by allowing it

to inflate in stages. The test was conducted on 3 December 2025 to demonstrate the successful opening of main parachute in three steps with differential time delay of Reefing Line Cutter. The test has been conducted with a dummy load of 500 kg by AN-32 Cargo A/c with drop altitude of 500 m AGL, Agra.



DRDO DEVELOPS ENGINE AND MANUAL OPERATED SEA WATER DESALINATION SYSTEM

Defence Laboratory Jodhpur (DRDO) has developed engine and manually-operated Sea Water Desalination System (SWaDeS) to meet the requirement received from tri-command services for purifying seawater using engine as well as manual effort. The engine operated system has the capability of purifying sea water of ≈35,000 mg/L TDS to permeate water of < 500 mg/L TDS with a capacity to fulfil the drinking water requirement of 20-25 soldiers. The system is manual portable and has the capability to deploy within 2-3

minutes for converting seawater into potable form.

In addition to this, the manual operable seawater purification system also has the capability to purify seawater to the level of permissible limit of drinking water. The system is portable by single solder and can meet the drinking water requirement of 10-12 soldiers in emergency. The SWaDeS is useful for tri-command establishment, naval operations, and coastal installations for purifying seawater. The systems have undergone the ATP and it is successfully completed.



RM WITNESSES DEMO ON ADVANCED NON-METALLIC MATERIALS AND PRODUCTS AT DMSRDE

Hon'ble Raksha Mantri Shri Rajnath Singh visited Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, on 30 November 2025. Dr Samir V Kamat, Secretary DDR&D and Chairman DRDO; Dr RV Hara Prasad, DS & DG (NS&M) and Dr Kingsuk Mukhopadhyay, OS & Director, DMSRDE, welcomed the dignitaries. Hon'ble Raksha Mantri (RM) paid homage by offering floral tribute to the Bharat Ratna Dr APJ Abdul Kalam statue at the DMSRDE main gate. Hon'ble RM subsequently visited the exhibition hall of DMSRDE, where materials, technologies, and products developed by DMSRDE in the area of ceramics & ceramic matrix composites, stealth & camouflage materials, nanomaterials, coatings, polymers & rubbers, fuels & lubricants, technical textiles, and personal protection systems were demonstrated. After the exhibition, Hon'ble RM was apprised by the Director DMSRDE about the vision, mission, charter, ongoing projects, technology focus areas, and roadmap of the laboratory. Hon'ble emphasized that technology developments should be aligned end-user requirements. with

Hon'ble Raksha Mantri appreciated the DMSRDE for carrying out a large number of Transfer of Technologies (ToTs) in the last two years, fulfilling the 'Aatmanirbhar Bharat' vision of the government. He called for exploring the export potential of developed defence products/ technologies and said MSME and industry interactions in DTTC, Lucknow, should be enhanced to meet the requirements of industries. He commended the laboratory's growing synergy with industry and academia in realising the Hon'ble Prime Minister's vision for a 'Viksit Bharat' by 2047.





DRDO AND DGA-FRANCE, INK TECHNICAL AGREEMENT TO DEEPEN COLLABORATION IN DEFENCE R&D

A technical agreement has been signed between the Defence Development Research & Organisation (DRDO) and the **Directorate General of Armaments** (DGA), France, to deepen collaboration in defence research development. Secretary and Department of Defence R&D and Chairman DRDO Dr Samir V Kamat and National Armaments Director, DGA France Lt. Gen. Gael Diaz de Tuesta inked the agreement at DRDO Bhawan, New Delhi, on 20 November 2025.

This strategic partnership aims to leverage the combined expertise and resources of both nations/entities develop to innovative solutions for future defence challenges. It provides a formal framework for joint research and training programs, testing activities, exchange information, organisation of workshops, seminars, etc. enhance the skill and knowledge in defence R&D.

Under the agreement, the transfer of equipment, know-how, and technologies will be available to both the countries. Key areas of cooperation outlined in this agreement include aeronautical platforms, unmanned vehicles, advanced materials for defence applications, cyber security, artificial intelligence, space,

navigation, advanced propulsion, advanced sensors, quantum technologies, underwater technologies, and other areas of mutual interest.

Both sides expressed confidence that this cooperation will significantly contribute to national security and global defence technology advancements.



TECHNOLOGIES TRANSFERRED BY DMRL, HYDERABAD

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, transferred the following technologies to the industries:

i) "Manufacturing of DMR 249A Steel Sheets (3.15-10 mm) by Coil Route for Naval Applications" to two industrial partners, namely, M/s Bokaro Steel Plant, Bokaro, SAIL and M/s JSW Steel Ltd., Mumbai.

ii) "Manufacturing of DMR 249A Steel Plates (Thickness: 10-20 mm) for Naval Applications" to M/s JSW Steel Ltd., Mumbai

iii) "Manufacturing of DMR 249A Steel Plates (Thickness: 21-40 mm) for Naval Applications" to M/s Bhilai Steel Plant, Bhilai and M/s Rourkela Steel Plant, Rourkela, SAIL (combined process).

These three technologies offer

a robust and reliable material, meeting the stringent dimensional, physical and metallurgical requirements for the construction of naval vessels.

iv) "Manufacturing of DMR-1700 Steel Forgings, Forged Feedstock and Mill Forms (Sheets and Plates) for Defence Applications through Ingot Route" to M/s Saarloha Advanced Materials



Private Limited, Pune. These steel products exhibit an excellent combination of ultrahigh strength and high fracture toughness at room temperature.

v) "Manufacturing of Light Weight Add-on Composite Armour for Wheeled Armoured Platform (WhAP) Vehicle" to M/s NTB International Private Limited, Pune. These armours provide an all-round ballistic protection as per international standards with 100 % indigenous technology.

The technologies transferred span diverse applications, demonstrating DMRL's multidisciplinary expertise. The ToTs with established industrial players will ensure that these innovations are rapidly scaled and deployed to meet critical user

needs.

The ceremony was held on 15 November, 2025 at DMRL, Hyderabad, during DMRL's 62nd Annual Day Celebrations. Dr R Balamuralikrishnan, OS & Director, DMRL handed over the Licensing Agreement for Transfer of Technology (LAToT) documents to the industry partners in the presence of Dr Samir V Kamat, Secretary, DDR&D & Chairman, DRDO, and Dr RV Hara Prasad, DS & DG (NS&M).



HANDING OVER OF CAMOUFLAGE PATTERN GENERATION SOFTWARE SIGMA 4.0 TO CME, PUNE

Shri VS Shenoi, DS & Director, Defence Laboratoroy, Jodhpur (DLJ) along with design team handed over the indigenously developed Multispectral Combat Tank Mock-up to Lt. Gen. AK SM, Commandant, Ramesh, College of Military engineering, handing Pune. during ceremony held at CME, Pune 3 December 2025. The DLJ developed this full-scale multispectral mock-up simulate signatures of actual combat tank in visual, microwave and thermal IR regions of electromagnetic spectrum. CME, Pune will use this mock-up for imparting training to service officers/personnel in the field of Camouflage, Concealment and Deception (CCD) technologies. Dr Ajay Jain, Sc 'G' & PD, Mock-up Development Project along with Shri Ravindra Khandelwal, Sc 'E'; Shri Sunil Kumar, TO 'C'; Shri Rajiv Sankhla, TO 'C'; and other team members from DLJ were also present during the ceremony.

During the occasion, the

dignitaries also launched the Camouflage Pattern Generation Software Sigma 4.0 designed and developed by DLJ for the use by Tri-Services. Sigma 4.0 has been developed to fulfil the requirement of Indian Armed Forces for camouflage pattern painting of strategic installations and ground-based vehicles/equipment.





DRDO HANDS OVER SEVEN TECHNOLOGIES DEVELOPED UNDER TDF SCHEME TO THE ARMED FORCES

The DRDO handed over seven technologies developed under Technology Development the Fund (TDF) scheme to the three Services. The technologies are an Indigenous High-Voltage Power Supply for Airborne Self-Protection Jammers, a tideefficient gangway for naval jetties, advanced very low frequencyhigh frequency switching matrix systems, VLF loop aerials for underwater platforms, Indigenous waterjet propulsion system for fast interceptor craft, a novel process for recovery of lithium precursors from used lithium-ion batteries, and a longlife seawater battery system for sustained underwater sensing and surveillance applications.

Each of these technologies/ products has been designed, developed, and extensively tested by the Indian industry with close collaboration and guidance of DRDO domain experts and the Triservices, reinforcing the scheme's focus on import substitution and critical technology development. The technologies were handed over during the meeting of the Empowered Committee of DRDO held at DRDO Bhawan, New Delhi, on 2 December 2025, under the chairmanship of Secretary, Department of Defence R&D, and Chairman DRDO Dr Samir V Kamat. Senior representatives from the Armed Forces, Department of Defence

Production and DRDO also attended the meeting.

The Committee deliberated upon the roadmap of successfully developed technologies and the ways in which the subsequent acquisition process needs to be streamlined and executed seamlessly. It recommended important policy alignments and enabling mechanisms to ensure faster induction & operational deployment of the developed technologies.



HANDING OVER OF TRAINING MODULE ON EMOTIONAL INTELLIGENCE BY DIPR

An Emotional Intelligence Training Module was handed over to Cmde Deepak Bhatia, Director, Centre for Excellence in Ethics, Leadership and Behavioural Studies (CELABS), Indian Navy, by Dr Nishi Misra, Director, Defence Institute of Psychological Research (DIPR) at Kochi on 1 December 2025.

The module consists of a comprehensive manual, a workbook on evidence-based activities, a pocket guide, and training sessions aiming to

enhance both intrapersonal and interpersonal skills.





MOU BETWEEN INMAS AND HP UNIVERSITY

A Memorandum of Understanding (MOU) between the Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, and Himachal Pradesh University (HPU), Shimla, was signed on 14 November 2025 at HPU, Shimla. Prof. Mahavir Singh, Vice Chancellor, Himachal Pradesh University, Shimla, and Dr Sudhir Chandna, OS & Director, INMAS, signed the MoU along with the team of senior faculty members from HPU and INMAS.

The partnership focuses on strengthening research, training, and innovation in Chemical, Biological, Radiological, and Nuclear (CBRN) sciences, healthcare technologies, and capacity-building initiatives. It is expected to enhance national preparedness and elevate academic research capabilities toward developing cutting-edge solutions benefiting both defence and civilian domains.



MOU BETWEEN NSTL AND QUANTUM COMPUTING APPLICATIONS, AP

As part of the 30th edition of the Confederation of Indian Industries Partnership Summit 2025, the Naval Science and Technological Laboratory (NSTL), Visakhapatnam, signed a Memorandum of Understanding (MoU) with the Government of Andhra Pradesh to collaborate in the emerging field of Quantum Computing for Computational **Dynamics** (CFD) Fluid defence applications. The MoU was signed in the presence of Shri N Chandrababu Naidu. Chief Hon'ble Minister Andhra Pradesh, underlining the state's commitment to driving technological innovation through the Amaravati Quantum Valley (AQV) initiative. Through this collaboration, NSTL aims explore quantum advantage in CFD simulations, focusing on high-performance defence applications for quantum computational fluid dynamics. The partnership aligns with India's National Quantum Mission and the vision of Atmanirbhar Bharat to build indigenous technological capability in next-generation computing.





DATRAN TEST VEHICLE – COMMENCEMENT OF INTEGRATION

Shri J Rajesh Kumar, OS & Sc 'H', Director, CVRDE, has formally commenced integration the activities of the DATRAN Test Vehicle on 4 December 2025 by mounting one of the subsystems. The DATRAN Test Vehicle is conceived, designed, and being developed as a test platform for vehicle trials of the indigenous 1500 hp DATRAN transmission and the 1500 hp engine being developed by CVRDE. They are in an advanced stage of development and will form a power pack. The test platform is a precursor for future AFV platforms. Director, CVRDE spoke about the history of the development of AFV within CVRDE, Shri S Srinivasa

Rao, OS & Sc 'H' & Program Director (Powerpack) and Project Director (DATRAN-1500), briefed about the status and progress of development of transmission and engine by CVRDE and the background for the DATRAN test vehicle. Shri S Mathi, Sc 'F', Project Manager (DATRAN-1500), coordinated the event.



INAUGURATION OF ARJUN SUSTENANCE ENGINEERING DIVISION & SAFETY ENGINEERING DIVISIONS AT CVRDE

Dr Samir V Kamat, Secretary DD R&D & Chairman DRDO inaugurated the Arjun Sustenance Engineering Division (ASED) and Safety Engineering Division (SED) on 13 December 2025 at Combat Vehicles Research & Development Establishment (CVRDE), Chennai, in the esteemed presence of Prof. (Dr) Prateek Kishore, DS & DG (ACE); Shri J Rajesh Kumar, OS & Director, CVRDE; and Shri T Panneer Selvam, OS & Associate Director (Arjun MBT).

Secretary DD R&D & Chairman DRDO also witnessed the new safety engineering facilities provisioned in the SED building and interacted with the fire safety personnel and encouraged them for following the safety practices. The new divisions aims to focus on Indigenization of AFV items/ sub-systems and adapt best safety practices in the laboratory.





FOUNDATION STONE LAYING AT CAIR-S1 CAMPUS, MYSURU

The foundation stone laying ceremony of CAIR-S1 campus at the Hebbal Industrial Area, Mysuru, was held on 16 November 2025, with solemnity and dignity, marking a significant milestone in the Organisation's journey towards strengthening its future research infrastructure and long-term vision. The event symbolized the beginning of a new chapter aimed at fostering innovation, scientific excellence, and national capability.

The ceremony was graced by the presence of several eminent dignitaries, including the Secretary DDR&D & Chairman, DRDO Dr Samir V Kamat; Smt Suma Varughese, DG (MCC); Dr UK Singh, DG (SSS); Dr Rituraj Kumar, OS & Director CAIR; Shri Prasanna Kumar, OS & Associate Director, CAIR; representatives from IFA and EMOs, along with senior scientists, officers, and members of the CAIR.

The event began with the unveiling of the plaque by

Chairman DRDO, symbolizing the initiation of the project and the collective resolve to translate vision into reality. This was followed by a detailed presentation on the proposed site planning and future utilization of the facility by Dr Rituraj. He highlighted the relevance of the upcoming infrastructure in advancing research, strengthening technological self-reliance, and contributing to national priorities.

The dignitaries thereafter undertook a site visit, during which the developmental plans and key features of the proposed facility were explained in detail.

The ceremony represents that meaningful first step towards the establishment of an infrastructure that is poised to contribute significantly to research excellence and national advancement, in alignment with the vision of Viksit Bharat.



SSPL INAUGURATES ANUMANTHAN KENDRA AT QTRC TO ENHANCE COLLABORATIVE RESEARCH ENVIRONMENT

The Solid State Physics Laboratory (SSPL), Delhi, inaugurated Anumanthan Kendra and laboratory space at the Quantum Technology Research Centre (QTRC), Metcalfe House, Delhi, on 19 November 2025. The facility was inaugurated by DG (MEDCoS & CS) Smt Suma Varughese, whose leadership has been central to shaping DRDO's quantum technology initiatives.

The newly established space is designed to provide an enabling

environment for scientists, researchers, and collaborators working in quantum technology domains. Equipped with modern workstations and collaborative interaction zones, the facility will promote seamless coordination

INFRA DEVELOPMENT



between teams engaged in cuttingedge research in quantum sensing, secure communication, and advanced quantum devices.

The development of the space complements the larger vision behind the Quantum Technology Research Centre, which was inaugurated earlier on 27 May 2025 by Secretary, DD R&D & Chairman DRDO, Dr Samir V Kamat, to strengthen India's indigenous quantum capabilities. The addition of this space further enhances QTRC's infrastructure.

The inauguration ceremony was graced by Dr Meena

Mishra, Director, SSPL, under whose visionary leadership and unwavering commitment the facility took shape. Her guidance has been instrumental in transforming the concept into a fully realised and modern workspace. The event was also attended by the Director, SAG; Director, JCB; Director. ISSA: Director, TM: Director, Director, CEPTAM: DESIDOC; CCE (R&D), MHSU; senior scientists; and other dignitaries.



FOUNDATION STONE LAYING CEREMONY OF LASER ABLATION RESISTIVE COATING CENTRE (LARCC) BUILDING AT DLJ

Ablation Laser Resistive Coating Centre (LARCC) is being established against the Project "Counter-measure Coatings and Technologies Against Laser Threats for Military Applications" sanctioned on 5 January 2023 with PDC of 42 months. The state-of-the-art facilities of laser ablation irradiating machines and materials and coating synthesis characterization facilities and will be installed in the facility. It will be utilised for chemical synthesis, physical and thermal characterization of materials and coatings as laser ablation resistance on the substrate material. This will be having various laboratories such as: Spray Coating Fabrication, Modelling and Simulation, Wet Chemistry, Polymer Synthesis, Polymer and

Filler Processing, Polymer Sheet Fabrication, Cermet Materials Synthesis, Mechanical Properties Evaluation, Electrochemical, Tribology, Laser Ablation Testing, etc. The ceremony was done by Dr RV Hara Prasad, DS & DG (NS&M) in the presence of Shri VS Shenoi, OS & Director, Defence Laboratory, Jodhpur (DLJ) on 19 November 2025. The ceremony was attended by the laboratory Directors of NS&M cluster laboratories, officers, & staff from O/o DG (NS&M), NS&M cluster laboratories and DLJ.





RAISING DAY CELEBRATIONS

CEPTAM, Delhi

The Centre for Personnel Talent Management (CEPTAM), Delhi, celebrated its 30th Raising Day on 12 December 2025, marking three decades of service in strengthening HRD. Dr Mayank Dwivedi, OS & DG (HR) & DG (R&M), graced the occasion as the Chief Guest. The program was attended by the Chairman, CEPTAM; Directors from DRDO HQrs and sister laboratories; former Chairman and Directors of CEPTAM; and other distinguished guests.

Ms Sunita Vadhera, Director, CEPTAM, in her welcome address, highlighted major initiatives and achievements, including the launch of the CEPTAM-11 Recruitment Cvcle on December 2025, for recruitment of 764 DRTC personnel. The Chairman, CEPTAM, commended the dedicated efforts of CEPTAM personnel, particularly for timely conduct and result declaration of the DRTC Assessment 2025. The program included the release of the 11th edition of CEPTAM's inhouse vaarshik patrika Pratibha Prasoon, a cultural presentation themed "Operation Sindoor" and felicitation of employees completing 25 years of meritorious service, along with commendation and appreciation awards for exemplary performance.

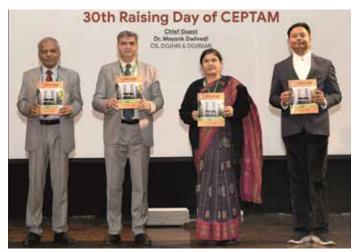
CVRDE, Chennai

Combat Vehicles Research & Development Establishment (CVRDE), Chennai, celebrated the 50 years of glorious journey by conducting various activities with a year-long celebration at their premises and the concluding part of the golden jubilee valedictory function was celebrated on 13 December 2025.

Dr Samir V Kamat, Secretary DD R&D & Chairman DRDO honoured the occasion as the Chief Guest and Prof. (Dr) Prateek Kishore, DS & DG (ACE) was the Guest of Honour for this momentous event. The event also witnessed the esteemed presence of dignitaries Shri J Rajesh Kumar, OS & Director CVRDE, Shri Subhod Kumar Nayak, OS & Director, PXE, senior scientists, officers from CVRDE and other allied department of defence R&D.

In his keynote address, the Chief Guest Dr Kamat appreciated the CVRDE fraternity for the unstinted efforts and contributions in the Armoured Fighting Vehicle (AFV) technologies. He further stated that government has taken lot of initiatives for promoting the defence R&D and DRDO is at the forefront to foster the country's technology base with smart and latest technologies for delivering world-class products.

The event was marked with release of photo album of CVRDE Golden Jubilee celebrations, handing over of NABL certificate for the recognition of mechanical systems in lieu of testing facilities, and letter of technical approval obtained from DGQA/CEMILAC for in-house development of Piston Seals for Running Gear Systems of the AFV.







DMRL, Hyderabad

Defence Metallurgical Research Laboratory (DMRL), Hyderabad celebrated its 62nd Annual Day on 15 November 2025 with great enthusiasm and pride. Dr Samir V Kamat, Secretary, DD R&D & Chairman, DRDO, graced the occasion as the Chief Guest, while Dr RV Hara Prasad, DS and DG (NS&M), DRDO attended as the Guest of Honour. Dr SS Satheesh Kumar, Sc 'F' & Chairman, Works Committee, delivered the welcome address. Shri V Ram Kumar, Secretary, Works Committee; Shri C Prabhakar, General Secretary, **DEFMETLAB Workers National** Union; and Shri Jeeban Kumar Das, General Secretary, DMRL Karmika Sangh, subsequently addressed the gathering and relevant presented reports highlighting kev activities and achievements.

The Guest of Honour, Dr RV Hara Prasad, emphasized the importance of materials technology for defence applications and identified critical focus areas for DMRL to address emerging and future challenges. Chief Guest, Dr Samir V Kamat,

lauded the laboratory's rich legacy and its significant contributions to nation-building, and appreciated DMRL's continued efforts in advancing indigenous material technologies.

DRL, Tezpur

Defence Research Laboratory (DRL), Tezpur, celebrated its 64th Raising Day with great enthusiasm on 21 November 2025. The event was graced by Dr Pramod K Satyawali, OS & Director, DGRE & Centre Head, DRL, who delivered an inspiring address. In his speech, he highlighted the laboratory's significant achievements by mentioning the Transfer of Technology (ToT) of Biodigester Microbac Biocultures to Pvt Ltd, Pune and patent filing (4 Nos), reflecting its continuous contribution to society and nation.





A special highlight of the program was the handing over of certificates and commendations to individuals recognizing their dedication and hard work.

MTRDC, Bengaluru

The 41st Annual Day of the Microwave Tube Research Development Centre (MTRDC), Bengaluru, was celebrated on 14 November 2025. Dr BK Das, DS & DG (ECS), and Shri Lal Chand Mangal, DS & DG (TM), graced the occasion as Chief Guest and Guest of Honour of the event, respectively. At the outset, Shri M Seikh Altaf, OS & Director, LRDE & MTRDC, welcomed the gathering. Dr Subrata Kumar Datta, OS & Centre Head, MTRDC, presented the activities of the Centre during the year 2025. Shri Manoj Jain, CMD, M/s BEL, addressed the gathering and highlighted the yearold relationship of M/s BEL with MTRDC. There was a technology transfer of two MTRDC products to the production partner M/s Bharat Electronics Limited, The first ToT was on 'X Band MPM for Brahmos Seeker,' and the second was on 'G Band Coupled Cavity Travelling Wave Tube.' LAToT agreements were also exchanged.





ECS CLUSTER CELEBRATES 100TH CCM

ECS cluster organized an event to mark the euphoric occasion of its 100th CCM since its inception in 2013. Following the regular CCM of ECS cluster held at O/o DG ECS on 22 November 2025, a special program was organized at LRDE. Dr Samir V Kamat, Secretary DD R&D & Chairman DRDO was the Chief Guest of the occasion Dr K Rajalakshmi Menon, DS & DG (Aero) and Shri LC Mangal, DS & DG (TM) honoured the event as the Guests of Honour. ECS cluster laboratory Directors, Directors of CABS, ADE, and GTRE and Director, DP&C, IFA R&D (ECS) and CDA (Bengaluru) graced the program. Shri SS Sundaram, former DG (ECS) and Dr KD Navak, former DG (ECS) elevated the event by joining, and were felicitated by Dr Kamat.

Shri Mangal, in his address, highlighted the first-ever initiatives taken up by ECS cluster like constitution of time-estimation committee, IFA walkthrough of project proposals, unique product realization framework and technology compendium, and congratulated the ECS cluster. Dr Menon invited ECS cluster for further and stronger collaboration

with Aero Cluster in equipping the armed forces. Dr BK Das announced about the "Photonics Programme" and "Military Satellite Constellation Program for Surveillance and Communication" to be pursued by ECS cluster. He invited the scientists to change their focus to futuristic technology development by offloading system development to industries.



INDUSTRY OUTREACH PROGRAMME

DRDO conducted an Industry Outreach Programme at DRDO Bhawan, New Delhi, on 1 December 2025. The program covered DRDO laboratories of North India and their industry partners with the participation of 220 scientists working on niche and critical defence technologies from 18 DRDO laboratories and 271 industry leaders from a diverse mix of defence industries.

Secretary, Department of Defence R&D, and Chairman DRDO Dr Samir V Kamat was the Chief Guest and Secretary (Defence Production) Shri Sanjeev Kumar was the Guest of Honour. During the event, a new procedure was released for implementing 'DRDO's ToT Policy 2025'.

In his address, the Chairman, DRDO outlined opportunities for the industries to partner with DRDO towards meeting the technology needs of the Armed Forces and other government agencies. The Secretary (Defence Production) highlighted the policies of the Government in promoting indigenous production and stressed that true self-reliance can be achieved only when the full cycle of designing to manufacturing and production at scale is carried out in-house.





INDIA MANUFACTURING SHOW-2025

That Laghu Udyog Bharati, Karnataka Chapter in association with IMS foundation organized 7th edition of India Manufacturing Show 2025 during November 2025 at Bengaluru. The aim of the exhibition was to act as catalyst for accelerating the manufacturing sector, by bringing together top minds, cutting edge technologies and best practices from across the globe, all while providing unparalleled business and knowledge sharing opportunities for exhibitors and business visitors. CEMILAC was nominated the nodal agency from DRDO and extended its support towards organizing and ensuring success of the event. Secretary, DD (R&D) & Chairman, DRDO was the Guest of Honour. CE(A),

CEMILAC delivered lecture on "Defence Airworthiness & Certification". During the event, Aero cluster laboratories ADE, ADRDE, CABS, CEMILAC, and GTRE representatives interacted with MSMEs over future technical cooperation & innovation. CABS &

CEMILAC distributed brochures/ catalogues giving details about their organisation. CEMILAC also distributed in house designed Certification Kit to MSMEs, containing videos & documents for easy assimilation of certification process.



DLJ PARTICIPATION IN 11TH IISF-2025

The event "11th India International Science **Festival** 2025" was held at Punchkula, Haryana, during 6-9 December 2025. The mission of 11th IISF "Vigyan Samruddhi: was se for Atmnirbhar Bharat". The event was jointly organized by Ministry of Earth Sciences, CSIR, DST, DAE and Department of Biotechnology in collaboration with the Government of Haryana and Vijnana Bharti (VIBHA). The event was inaugurated by Hon'ble Dr Jitendra Singh, Minister of State for S&T and Earth Sciences. Hon'ble Governor, Haryana Prof. Ashim Kumar Ghosh presided over the valedictory ceremony.

Exhibition of DRDO products was organised where DRDO

laboratories including Defence Laboratory, Jodhpur (DLJ) displayed India's advancement in defence technologies. The visitors took keen interest in understanding the technologies and products developed by DRDO. DRDO has also won the "Most Engaging Pavilion" award during the event.





CLEARANCES TO THE ALLOYS INDIGENIZED BY MIDHANI FOR AL31FP ENGINE POWERING SU-30 MK-I AIRCRAFT

Centre for Military Airworthiness & Certification (CEMILAC), Bengaluru, has awarded Provisional Clearances to M/s Mishra Dhatu Nigam Limited Hyderabad, (MIDHANI), successfully indigenizing various grades of Superalloys, Titanium alloys, and Special steels like BZL1, BZL14H, ZS 6Y, OT 4-1, Titan 33A, AE866W and 16XH3BFMB-W for the AL31FP engine powering the SU-30MK-I aircraft. These critical alloys will be further used manufacture safety-critical and mission-critical aero engine components of AL31FP.

While presenting the certificate, Shri APVS Prasad, CE(A), CEMILAC, appreciated MIDHANI's endeavors for indigenizing the components for the SU-30MK-I aircraft's AL31FP

engine, a project initiated by HAL, Koraput in 2024. He also applauded RCMA (Materials) team and encouraged all to pursue indigenization and certification on a fast-track mode.



PATENTS GRANTED

- 1. A Patent No. 505606 for "A Method and System of optimizing Sidelobe Suppressing in Sonar Beamformer" has been granted by Indian Patent Office to Shri S Vijayan Pillai and Smt Baheeja PE, of Naval Physical & Oceanographic Laboratory (NPOL), Kochi.
- 2. A Patent No. 564248 for "A Connector Mating Tool for Dry-Mated Electromechanical Connectors" has been granted by Indian Patent Office to Shri S Kosalaraman, Shri Senthil RS, Shri Liju VR, Shri Kamalasan NK, and Shri Manoj Kumar K, of Naval Physical & Oceanographic Laboratory (NPOL), Kochi.

RISING INDIA 2025 AT HRIT UNIVERSITY, GHAZIABAD

Directorate of Human Resource Development (DHRD), DRDO HQrs, along with Centre for Fire, Environment and Explosive Safety (CFEES), Delhi, as the nodal laboratory, and Solid State Physics Laboratory (SSPL), Delhi, participated in HRIT University's three-day Exhibition Mega during 24-26 November 2025 at Ghaziabad. The event was an initiative towards innovation and nation building and served as a dynamic platform for students,





scientists, and researchers. The event welcomed more than 500 participants and thousands of visitors, including students from various schools and colleges. Pamphlets for "Join DRDO" and souvenirs were distributed to the students, and students were encouraged to join DRDO,

thus expanding awareness and cultivating fascination in them towards R&D in defence. Models of products developed by CFEES and SSPL were displayed in the DRDO stall. Besides DRDO, other organisations such as ISRO, ICMR, BIS, CSIR, DAE, GSI, DST, NTPC, IRCTC, ECGC, NCRTC,

the National Medicinal Plants Board (NMPB), and the Ministry of Information & Broadcasting also participated in the event. The DRDO stall was declared as the winner of the exhibition, and the award was presented to the DRDO team by Hon'ble UP Minister Shri Asim Arun.

CONSTITUTION DAY CELEBRATION AT CVRDE

The Constitution Day (Samvidhan Diwas) was celebrated at Combat Vehicles Research & Development (CVRDE), Establishment Chennai, on 26 November 2025 to commemorate the adoption of the Constitution of India. During the occasion, all officers and staff of CVRDE were affirmed to imbibe the constitutional values and democratic conditions by reading the Preamble in the presence of Shri J Rajesh Kumar, OS & Director, CVRDE.



VIGILANCE AWARENESS WEEK 2025

DEBEL, Bengaluru

Vigilance Awareness Week for the year 2025 was observed in Defence Bioengineering & Electromedical Laboratory (DEBEL), Bengaluru, during 27 October 2025 to 2 November 2025 with the theme for this "Vigilance: Our Shared Responsibility." As part of the event, Dr R Ramani, Sc 'F' and JD (Vig. & Sec.) gave a brief overview about the significance of observing the vigilance awareness week. He also emphasized that inculcating vigilance awareness would help



in creating a corruption-free atmosphere that would lead to the

welfare of citizens as well as to the progress of the nation at large.



DMRL, Hyderabad

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, observed Vigilence Awareness Week 2025 during 27 October 2025 to 2 November 2025. As part of the observance, several activities organized, including were the distribution of awareness pamphlets to employees, administration of the Integrity Pledge to all personnel, essay and creative writing competitions, a street play, and a 'Run for Unity'. A one-day workshop titled "Vigilance Awareness, Cyber Security, and Physical Security" was organized on 30 October 2025. The program





concluded with a Run for Unity organized on 31 October 2025 within the laboratory premises, which witnessed enthusiastic participation from employees.

DMSRDE, Kanpur

Defence Materials and Stores Research & Development (DMSRDE), Establishment Vigilance Kanpur, observed Awareness Week (VAW) 2025 during 27 October 2025 to 2 November 2025 with the theme "Vigilance: Our Shared Responsibility." Dr JN Srivastava, Associate Director, DMSRDE, administered the Integrity Pledge to all DMSRDE personnel. Apart from this, all the officers and staff took the e-integrity pledge from CVC's website. The event was coordinated by Dr Harish Kumar, Sc 'F' & Vigilance Officer.

ISSA, Delhi

Vigilance Awareness Week was observed at the Institute for Systems Studies & Analyses (ISSA), Delhi, during 27 October 2025 to 2 November 2025. The event commenced with an individual citizen integrity pledge and organizational integrity pledge by all employees of the laboratory. Shri Anurag Pathak, Sc delivered a lecture on "Vigilance: Responsibility" Our Shared on 31 October 2025, where all officers and staff of the institute participated enthusiastically.



FIT INDIA FREEDOM RUN 6.0

DMSRDE, Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, organized the 6th Edition of Fit India Freedom Run events during 2-31 October 2025. The theme of this year's Fit India Freedom Run was Swachhata and Swasthya. Several events were organised during the campaign, mainly the "Sundays on Cycle" event and the "Fit India Freedom





Run/Walk" events on 14 and 31 October 2025. The events were coordinated by Shri Vishal Das, Sc 'F' & Sports Officer.

INMAS, Delhi

The Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, organized the "Fit India Freedom Run 6.0" under the leadership of Dr Sudhir Chandna, OS & Director INMAS, in line with the national campaign under the Fit India movement, on 30 October 2025. The event began with an address on the significance of the



Fit India App, physical fitness. The director, officers, and staff of the laboratory actively participated in the event.

The event has witnessed an enthusiastic and energetic participation, including more than 175 participants covering 350 km.

RASHTRIYA EKTA DIWAS 2025

Defence Research Laboratory (DRL), Tezpur, observed "Rashtriya Ekta Diwas" on 31 October 2025 to commemorate the birth anniversary of Sardar Vallabh Bhai Patel. All employees of DRL, including research fellows and contractual staff, took the pledge of "Rashtriya Ekta Diwas," reaffirming their dedication to uphold the unity, integrity, and security of the nation.



FIRE SAFETY MOCK DRILL AT DRL

A fire safety mock drill was organized at Defence Research Laboratory (DRL), Tezpur, on 24 October 2025 for fire emergency awareness among all the employees. Ms Bhawani Enterprises, Balipara, led the mock drill. All the employees of DRL, including other offices residing DRL technical premises, participated in the awareness program.

The laboratory also conducted

Fire Safety Training on 12 November 2025. The Fire & Emergency Service Station (F&SS), Tezpur, imparted fire safety training to all employees of DRL.





SWACHHATA PAKHWADA CELEBRATION

CEMILAC, Bengaluru

for Centre Military & Airworthiness Certification (CEMILAC), Bengaluru, celebrated Swachhata Pakhwada during 1-15 December 2025. The opportunity was utilised for creating awareness and encouraging employees' to adopt this habit in their day-to-day activity. Intensive cleaning drive; cleanliness pledge; and single-use plastic ban were the features of the campaign.

The campaign was inaugurated by Dr Anantha Padmanabha, Sc 'G'. He stressed that cleanliness is not a one-day task, but a habit and also collective responsibility that directly impacts our workplace environment and productivity too. Giving importance to individual's role, he requested all to spare time for cleanliness drive and also inspire others to take part so that goal of 'Swachh Bharat, Swasth Bharat' (Clean India, Healthy India) can be realised.



DESIDOC, Delhi

Defence Scientific Information and Documentation Centre (DESIDOC), Delhi, conducted Swachhata Pakhwada during December 1-15 2025. event was commenced on December 2025 with a cleanliness administered pledge

Dr Mohd Yousuf Ansari, Sc 'G', DESIDOC along with all officers and staff of DESIDOC followed by a comprehensive cleaning drive across office building and its premises.



DMSRDE, Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, conducted the Special Campaign on Disposal of Pending Matters and Cleanliness Drive (SCDPM 5.0) during 2-31 October 2025 as per the guidelines provided by DRDO HOrs. In this context the following special events and activities were conducted DMSRDE under the able guidance of Dr Kingsuk Mukhopadhyay, OS & Director, DMSRDE:

Around 5 tons of mechanical scrap have been condemned and sent to COD for further disposal. The event was coordinated by Dr AS Parihar, Sc 'F' and Dr Sunil Kumar, Sc 'D'.



NSTL, Visakhapatnam

Naval Science & Technological Laboratory (NSTL), Visakhapatnam, participated in nation-wide cleanliness drive. the Swachhata Pakhwada various conducting activities during 1-15 December 2025. During the campaign, a special emphasis was laid on cleaning the unattended sites, building rooftops with a special focus on making the campus free of single use plastic waste, garbage and address areas with any kind of water stagnation. A voluntary cleanliness campaign was organised in office premises and residential campus with Mahila Kalyan Manch (MKM) of NSTL. An exhibition on Waste to Wealth was conducted at office premises as well as Ramanath Secondary School on 10 December 2025.

A Swachhata theme painting competition was conducted with active participation from NSTL employees as well as students of Ramanath Secondary School on 11 December 2025. The event was conducted under the supervision of Sri Ashok Kumar, Sc 'F' and Lt. Col. Rahul Dixit.



WORLD QUALITY WEEK 2025

ACEM, Nasik

Advanced Centre for Energetic Materials (ACEM), Nasik, celebrated World Quality Week during 10-14 November 2025. The theme of the program was "Quality: Think Differently." Various competitions like the MCQ competition on quality control and quality assurance, slogan writing, innovative ideas/ methods for quality assurance, and short articles on the theme were conducted. The concluding ceremony was held on 19 November 2025. Shri TV Jagadeeswar Rao, OS & GM, ACEM, along with the Guest speaker, Shri PC Barik, (Quality), HAL, Nasik, AGM inaugurated the program.



DEBEL, Bengaluru

World Quality Week 2025 celebrated in Defence Bioengineering & Electromedical Laboratory (DEBEL), Bengaluru, during 10-14 November 2025. As part of the event, a lecture was organized to sensitize the employees on quality practices and techniques. Smt Ashlesha Khodwe, Sc'F'. JD (OA), welcomed the gathering. Dr R Indu Shekar, Director, DEBEL presided over the event and highlighted the importance of quality in defence R&D activities, especially in DEBEL, where most of the products have to meet stringent quality requirements to obtain airworthiness certification. Smt MR Vijaya Lakshmi, Sc 'G', GTRE, Bengaluru delivered the lecture on 'Role of Non Destructive Evaluation in QA'. The session was concluded with vote of thanks by Dr Geetika, Sc 'E'.



DMSRDE, Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, celebrated World Quality Week 2025 during 10-14 November 2025. The Chief Guest of the event Dr Kingsuk Mukhopadhyay, OS & Director, DMSRDE, along with Guest of Honour Brig T Rajneesh CQA (T&C), Kanpur, inaugurated the event. In his address, Director talked about the importance of this year's theme and emphasised on introduction of AI in quality. On the occasion, the DMSRDE Safety Manual and Fire Standing Order were also released. The event was organised by Dr AK Singh, Sc 'F' and his team.



HEMRL, Pune

High Energy Materials Research Laboratory (HEMRL), Pune, celebrated World Quality Day on 17 November 2025. Shri Sandeep Patil, Head Quality & Reliability, Technologies, Atomberg the Chief Guest. Dr Himanshu Shekhar, Sc 'G' & Officiating Director, HEMRL, delivered the welcome address. Shri C Gururaja Rao, Technology Director, in his address briefed about the steps taken by HEMRL in the past year to improve the quality of the products and services delivered by the laboratory.

As a part of celebrations, various competitions were arranged. A keynote address on "Relevance of Q&R initiatives during the early life cycle stage of the product" was delivered by the Chief Guest.



MTRDC, Bengaluru

Microwave Tube Research and Development Centre (MTRDC), Bengaluru, observed World Quality Week 2025 during 12-14 November



2025. The laboratory organised various events and a lecture series on "Quality Management System for Aeronautical Industries" and "Reliability Engineering Programs." The expert lecture was delivered by Shri Sadananda Upadhya, Sc 'G', O/o DG ECS.



NMRL, Ambernath

Materials Naval Research Laboratory (NMRL), Ambernath, observed World Quality Week 2025 during 10-14 November 2025 with activities aimed to strengthen quality awareness and promoting best practices. Two guest lecture from eminent industries were organized during the week. Dr Rajkumar Kasilingam, Former Director, IRMRI, Thane, delivered a lecture on 'Innovating Quality: Strategic Research for a Sustainable Future' and Shri Atul Pathak, L&T (PCS), Chennai, delivered a lecture on 'Quality Assurance 4.0: Integrating Al, Automation and Analytics'.



NPOL, Kochi

Naval Physical and Oceanographic Laboratory



(NPOL), Kochi celebrated World Quality week during 10 to 14 November 2025. The activities commenced with formal a inauguration by Dr Duvvuri Seshagiri, OS & Director, NPOL. A quality pledge was administrated by Director, NPOL. A talk on "Quality Assurance Process for DRDO Projects: AESA Radar Case Study" by Dr Mustaq Basha, Sc 'F', LRDE, was arranged. Also organized an awareness presentation on "DRDO Guidelines Quality and Reliability Assurance" by Dr KH Kochaleema, Sc 'G', Associate Director (ORS). The event concluded with a workshop on quality awareness and safety guidelines conducted at Underwater Acoustic Research Facility (UARF), Kulamavu, a unit of NPOL.

TBRL, Chandigarh

World Quality Week 2025 was celebrated at the Terminal **Ballistics** Research Laboratory (TBRL), Ramgarh Ranges, Ramgarh, on 19 November 2025 on the theme "QualityThink Differently." Shri JB Singh, TD, R&QA, TBRL, gave a brief on the relevance of the theme in the current scenario in the context of the organisation with a focus on the latest technologies/trends like the use of AI/ML/DL in the quality domain.

Shri Niladri Mukherjee, Sc 'G', delivered the keynote address and stressed the importance of quality and reliability in the domain of defence technology. Two guest speakers - Ms Talika Sharma, JD, Bureau of Indian Standard (BIS), Chandigarh, and Dr Sujeet Kumar Sinha, MD, M/s NIIRT Calibration & Testing Services, Panchkula (Haryana)—graced the occasion and delivered the talks. Ms Sharma delivered an insightful presentation on the fundamentals of quality and reliability, emphasizing the importance of the seven quality tools and total quality control. Dr Sujit Kumar Sinha delivered a talk on "Global Quality and Standardization" with a focus on practices in Defence R&D laboratories. He pointed out the need for global standardization enhance credibility to and competitiveness.





CELEBRATION OF KARNATAKA RAJYOTSAVA

Karnataka Rajyotsava was celebrated at Microwave Tube Research & Development Centre (MTRDC), Bengaluru, with vibrant enthusiasm and a strong sense of cultural pride. The event featured a delightful blend of cultural performances, including dance, music, skits, and a traditional yakshagana fashion showcase that highlighted the rich heritage of Karnataka. Shri Ranganath Bharadwaj, the literalist and Chief Producer at Associated Broadcasting Co. Pvt Ltd (TV9), graced the occasion as the Chief Guest of the event.



BOOK EXHIBITION AT R&DE(E), PUNE

Technical Information Center (TIC), R&DE(E), Pune, conducted a book exhibition during 18-19 November 2025. The event was inaugurated by Dr Makarand Joshi, Director, who highlighted the importance of continuous learning and encouraged participants to make effective use of the resources on display. Throughout the exhibition, scientists, technical and administrative staff, JRFs/SRFs, and project students visited and expressed their interest in the curated selection. A total of 1,871 books were requested to be purchased.



TRAINING ON RETIREMENT PLANNING AT BENGALURU

A two-day training program on 'Retirement Planning' for DRDO officials who are due for superannuation during the November-December 2025 was organized by DHRD, DRDO HQrs at Targeted Training Centre (TTC), Bengaluru during 21-22 November

2025. The course was inaugurated by the Chief Guest Shri Sheik Althaf M, OS & Director, LRDE in the presence of course coordinator Dr Sushant Kumar Chhotray, Sc 'F', OIC, TIC. The training included sessions on SPARSH for pensioners, administrative rules, health and wellness by medical experts, financial planning, lifestyle re-engineering through Yoga, and other relevant areas.

The course concluded with a valedictory session by Shri Gampala Viswam, former OS and Director, LRDE.





SAMEER-INMAS LINAC (30MEV) PROJECT REVIEW AND STRATEGIC EXPANSION PLAN

A review meeting of INMAS-SAMEER LINAC (30 MeV) between the Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, and the Society for Applied Microwave Electronics Engineering Research (SAMEER) team under the chairmanship of Dr Sudhir Chandna, OS & Director, INMAS, co-chairmanship of Hanumantha Rao, DG SAMEER & Dr GK Rath, Former Head, IRCH, AIIMS, Delhi, was held at INMAS, Delhi.

INMAS has partnered with SAMEER to install a first-of-itskind 30 MeV LINAC in India at the INMAS Burari campus for



space radiobiology and isotope production supporting CBRN research. The system, comprising two linear waveguides, is expected to be ready at SAMEER Mumbai by March 2026 and will subsequently be transported and commissioned in a dedicated radiation bunker at the Radiation Facility Cluster of the INMAS Burari campus to facilitate advanced radiobiology experiments.

WORKSHOP ON HIGH ENERGY & SPECIAL MATERIALS

Advanced Centre for Energetic Materials (ACEM), Nasik 2025, in association with Tomsk State University and Federal Research & Production Centre, Russia, organized the XX International Workshop on High Energy & Special Materials with the theme "Future Trends in Propulsion Technologies" during 7-8 November. workshop The was virtually inaugurated by Dr Samir V Kamat, Secretary DDR&D & Chairman DRDO, in the presence of Guest of Honour, Prof. Prateek Kishore, DS & DG (ACE); Dr Chandrika Kaushik, DS & DG (PC&SI); Dr AP Dash, OS & Director, HEMRL; Shri TV Jagadeeswar Rao, OS & General Manager, ACEM: and Prof.



Alexander B. Vorozhtsov, Tomsk State University, Russia.

Prof. Kishore in his address emphasized the critical role of high-energy materials in modern defence, and outlined the key priorities such as indigenization, cutting edge research and industry integration. The workshop was attended by 350 delegates comprising academicians from India and abroad, scientists from DRDO and ISRO, students, and industry partners.



TECHNOLOGY COUNCIL MEETING

The 11th Technology Council Meeting (TCM) between MHA and DRDO, chaired by Dr Chandrika Kaushik, DS & DG (PC&SI), was conducted at DRDO Bhawan on 19 November 2025. Members of the council from MHA (Police Modernization). CAPFs. Delhi and Police. NDRF. BPR&D participated in the discussions. The chair appreciated collaborative efforts in meeting the requirements of internal security and disaster relief operations, like the development of new technologies by DRDO laboratories, field trials by the MHA Board of Officers, procurements of DRDO products by users, the inclusion of a significant amount of DRDO-developed products in the formulation of Mod Plan V, and DRDO scientists' participation in MHA technical committees.

Shri Sangita Rao Achary, Director, DLIC, and Member Secretary, Technology Council, presented the progress made in the realization of AoN-issued projects, technologies discussed in the previous TCM, new requirements from users, and amendments needed in existing policy guidelines.



WORKSHOP ON ONOS AT ARDE

A workshop on "Maximizing e-Resources Access of with ONOS Journals and **DRDO** Digital Library" was jointly organized by Defence Scientific Information and Documentation Centre (DESIDOC), Delhi, in collaboration with Armament and Development Research Establishment (ARDE), Pune at Pune. The workshop was inaugurated bv Smt Kiran Chauhan, Director, DESIDOC, and Shri RP Pandey, Sc 'H'. Dr BB Padhy, Sc 'G', underlined the significance of the workshop and emphasized the growing

importance of digital resources in strengthening research and information accessibility. Shri Pandey in his address highlighted the critical role of e-resources in improving research efficiency and encouraged participant to explore and utilized the ONOS system more actively. Smt Chauhan briefed

the gathering on DESIDOC's various initiatives in digital access, knowledge management, and support services extended to DRDO laboratories. She urged participants to make maximum use of DESIDOC's Single Window Services for their research and technical requirements.



COURSE ON DRM AT DESIDOC

Defence Scientific Information and Documentation Centre (DESIDOC), Delhi, organised a three-day Continuing Education Programme (CEP) entitled "Digital Resource Management in R&D Institutions" during 15-17 December 2025. Ms Kiran Chauhan, Director DESIDOC, inaugurated the course. The course included twelve technical sessions on various topics, like, DESIDOC services, digital libraries, digital preservation, knowledge management in R&D

HRD ACTIVITIES



environment, role of artificial intelligence in library services, DLAS 2.0, DRDO digital library, library and scholarly communications & research data management. The sessions were systematically arranged to provide succinct information on the digital resources in R&D institutions and their management.



COURSE ON ADVANCED TECHNOLOGY MANAGEMENT

The Institute of Technology Management (ITM), Mussoorie, organised a two-week ioint certification course on 'Advanced Technology Management (AToM)' in collaboration with IIT Bombay during 17-28 November 2025, at IIT Bombay. A total of 36 scientists participated in the course. The course was virtually inaugurated by Chief Guest Prof. Prateek Kishore, DS & DG (ACE), along with Dr VV Rao, Director DIA-COE, IIT Bombay; Prof. SVD

Nageswara Rao, Head, School of Management, IIT Bombay; Prof. Sawan Rathi; and Prof. Balaramdurai. Various thrust areas, including quantifying technological progress over time by using figures of merit, etc. were covered. The course concluded with a vote of thanks by Course Director, Dr A Gourav Rao, Sc 'E'.



MSSC MEETING AT DMSRDE

The Material Second Standardisation Sub-Committee (MSSC) meeting was held at Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, on 6 November 2025 in hybrid mode. Dr Kingsuk Mukhopadhyay, OS & Director, DMSRDE, and Chairman MSSC, chaired the meeting. A lecture was delivered by Distinguished Guest Dr SK Pandey, Controller, CQA(M), Kanpur. The meeting was attended by members from DMSRDE, Kanpur; Hvderabad: DMRL,

CVRDE, Chennai; Directorate of Standardisation, New Delhi; Defence Standardisation Cell (DSC), Kanpur; CQA (M), Kanpur; CQA (GS), Kanpur; CQA (Met,) Ichapore; DS Cell, Ichapore; CQAL, Bangalore; and DPIT (VC). The meeting concluded with a vote of thanks by Lt Col Dhiresh Narain, OIC DS Cell Kanpur. The meeting was organised by Dr AK Singh, Sc 'F' and his team.





COURSES AT ISSA, DELHI

Modelling and Simulation Techniques in Defence Analyses

Institute for Systems Studies & Analyses (ISSA), Delhi, organised a course on "Modelling and Simulation Techniques in Defence Analyses" during 1-5 December 2025. The course covered key aspects of systems analysis, modelling & simulation, statistical analysis, optimization techniques, system life-cycle costing, and IV & V of models. It also addressed threat analysis, combat potential evaluation and multi-criteria decision making. During the course various case studies and wargames

developed for Land, Naval, and Air & Tri-services were also demonstrated to the participants. Total 18 participants attended the course. Scientists from ISSA, DIPR, DFTM, academia and industry were invited to deliver the lectures during the course. Shri Varun Kumar Singh, Sc 'F' was the course director and Shri Lalit Mohan Gupta, Sc 'E' was the deputy course director.



Sensor System Analysis and Modelling

Institute for Systems Studies & Analyses (ISSA), Delhi, organized a three day course on "Sensor System Analysis and Modeling" during 10-12 December 2025. The program featured expert lectures on radar, sonar and electronic warfare systems, performance analysis of sensor systems, HF propagation, surface environment modeling, and data link analysis. Hands-on session, demonstrations of in-house developed products and exposures to modeling and simulation tools were also included. The lectures were delivered by experts from ISSA, NPOL, DLRL, and DEAL along with faculty from academia and industry. Shri Vishal Agarwal,

Sc 'F' served as the course director while Shri Suresh, Sc 'E' was the deputy course director.



WORKSHOP ON GEM PROCUREMENT AT ADE

Aeronautical Development Establishment (ADE), Bengaluru, organized a one-day workshop on "Procurement through GeM" on 5 December 2025 on behalf of DRDO HQrs and DG (Aero). Dr K Rajalakshmi Menon, DS & DG (Aeronautical Systems) inaugurated the workshop in the presence of Shri Y Dilip, DS & Director ADE, Dr Maiya Din, Sc 'G' & Director (DFMM), Shri Shankar IDAS, CDA (R&D), Bengaluru and Shri Sudhir Narayan IDAS, IFA

(R&D) Aero. The dignitaries addressed the gathering. A total of 150 participants from Bengalurubased DRDO laboratories attended the workshop.

The program was conducted in two sessions. CMDE BK Munjal

HRD ACTIVITIES



(Rtd.) Advisor (GeM-Defence) and Shri Gautham, Business Facilitator-GeM Bengaluru Region, presented the latest features and various modules of the GeM portal. The session was followed by an interactive query session, wherein CMDE BK Munjal nearly 66 practical issues faced by various laboratories.



COURSES AT DMSRDE, KANPUR

Polymers and Functional Nanocomposites

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, organized a course on 'Polymers and Functional Nanocomposites for Energy Generation and Energy Storage Applications' during 17-21 November 2025. A total of 29 participants from various DRDO laboratories and academic institutions attended the course. Eminent speakers from DRDO laboratories and reputed national institutes, delivered scientific talks on recent technological advancements in the field of polymers and their nanocomposites related to energy generation and energy storage applications such as supercapacitors, hydrogen fuel cells, batteries, etc.



Advanced 3D Modelling and Engineering Simulation Techniques

three-day Α specialized workshop under the Skill Development **Program** on "Advanced Modelling 3D Simulation and Engineering Techniques using SolidWorks Premium" was organized by DTTC (DMSRDE), Lucknow, during 25-27 November, 2025. The workshop was inaugurated by Chief Guest Shri Vivek Kumar, Joint Director & Head, CIPET, Lucknow. Shri Amit Kumar, Sc 'F' & Course Coordinator, provided

the overview of the program. During the welcome address, Dr Ashish Dubey, Sc 'G' & PD, DTTC, highlighted DTTC's role in supporting MSMEs and startups and briefed the participants about the Centre's technical facilities and mandate.





COURSES AT LRDE, BENGALURU

Illuminating the Future: A Workshop on Photonics Technologies

Electronics & Radar Development Establishment (LRDE), Bengaluru, conducted "Illuminating the Future: Workshop on **Photonic** Technologies" on 21 November 2025. The objective of the workshop was to provide deep insights into the ongoing and futuristic research and development activities in Photonic Technologies, particularly the context of next-generation photon-ic integrated Radar, Communication. Electronic Warfare (EW) and Electro-Optic/ Infrared (EOIR) systems. The inaugural session started with welcome address by Shri Sheik Althaf M, OS & Director, LRDE,

address by Guest of Honor Shri LC Mangal, DS & DG (TM) and inaugu-ral address by Dr BK Das, DS & DG (ECS) setting the context for the importance of photonics in emerging defence technologies. The workshop was concluded with a panel discussion chaired by Shri SS Sundaram, DS & former DG (ECS). The panel discussion brought out key challenges, potential research directions and collaborative opportunities to strengthen the photonics ecosystem for defence applications.



Awareness Training Programme on Effective Utilization of e-resources and Emerging Trends in Library

LRDE, Bengaluru, organized awareness training program on "Effective Utilization of e-resources and Emerging Trends in Library" on 14 November 2025 under the guidance of Shri M Sheik Althaf, OS & Director. The program focused on familiarizing and creating awareness among scientific community of LRDE about research ethics, One Nation

One Subscription (ONOS) and DESIDOC services. Dr Somsing Rathod, Sc 'F', delivered the welcome address followed with lecture by Guest Speaker, Prof. M Krishnamurthy, Indian Statistical Institute on "Research Ethics and Academic Integrity". The lecture gave insight on the ethics to be followed from writing research papers to publishing process. Dr

V Senthil Sc 'F', GTRE, presented on "One Nation One Subscription" and gave demonstration on access to ONOS e-resources and remote access account activation. Shri Sudhanshu Bhushan, Sc 'F', DESIDOC presented on DESIDOC services and provided overview of DESIDOC single window services. Smt Raajita B Reddy, Sc 'F' proposed vote of thanks.





RCMA CONFERENCE 2025-KORWA

The RCMA Conference 2025 was held at Korwa (UP) during 22-24 November 2025 under the aegis of RCMA Korwa. As special guests, IFA (R&D) and PCDA, New Delhi attended the conference. Dir (Materials & PI), welcomed all the participants for the conference and briefed the objectives and agenda of the conference. He emphasised on the theme of the Conference "Ease of doing and Speed of Certification" and urged the participants to actively

participate in the discussions. During the ceremony, CE (A) released the Certification Kit Ver 2.0 and inaugurated MILAN Ver 2.0-CEMILAC internal website. **Besides** series of lectures/ presentation on various topics, the conference also included a detailed deliberation on various topics as future airworthiness challenges, criticality analysis during initiation of projects, preparation to future certification challenges, formation national analytical data centre, etc. The event also coincided with the silver jubilee of RCMA (Korwa). Various dignitaries including ED, Ordinance Factory; GM, HAL (Korwa); GM, IRPL; officers from tri-services and DGAQA attended the celebration.

The event also marked the release of Pushpak- a compilation of technical papers in Rajbhasha and RCMA Korwa at a Glance - magazine covering the history and major milestones achieved in the past twenty-five years.



TRAINING PROGRAM ON SAFETY AT DRDL

course on the "Basic Training Program on Safety for DRDO Officer" was organized by the Defence Research and Development Laboratory (DRDL), Hyderabad, during 10-14 November 2025. Officials from various DRDO laboratories, viz., NPOL, RCI, DMRL, BRAHMOS, participated DRDL, and The course was the course. inaugurated by Ms Mahasweta Bakshi, Sc 'H' & Officiating Director, DRDL; Shri R Krishna Mohan Rao, Sc 'H', DRDL; and Shri GV Siva Rao, Sc 'H', Group Director of Testing & Safety, and Course Director. Shri N Vijay,

Sc 'F', briefed about the overview of the course. Experts from different laboratories like ASL, ARDE, CFEES, RCI, TBRL, and DRDL were invited as faculties. The course covered almost the entire spectrum of safety, health, and environment with many interesting case studies, and live demos.





COURSES AT R&D(E), PUNE

Essentials of Research Methodology and Scientific Writing

A brief course on 'Essentials of Research Methodology and Scientific Writing' was conducted at Research & Development Establishment (Engineers) (R&DE (E)), Pune, on 21 November 2025. The course was intended to strengthen the research competencies of early-career scientists by providing a thorough understanding of the fundamental principles that govern the design, conduct, and dissemination of scientific research. During his inaugural address, Dr Makarand Joshi, Director, emphasized the significance of effective scientific communication in advancing the quality and credibility of research. The event was concluded with a vote of thanks by Dr Anoop Anand, Course Director.



Cyber Security Awareness Workshop

On 21 November 2025, R&DE(E) Pune hosted its "Cyber Security Awareness" workshop as part of the National Cyber Security Awareness Month, to equip the knowledge and skills required to safeguard digital assets. Participants were guided to secure their data by creating strong, unique passwords, enabling multi-factor authentication, and keeping software up to date. Dr Mane also emphasized the role of encryption and shared best practices for safe internet use and email communication. Ms Gurpreet Kaur, Sc 'F', highlighted critical security measures for the DRONA network and the Internet that all lab employees should observe.



Lecture on How to Keep Your Heart Healthy

R&DE(E), Pune, as a part of 'The Forum' Lecture Series, organised an invited talk on 'How to Keep Your Heart Healthy' by eminent interventional cardiologist Dr Priya Palimkar, Om Heart Care, Pune, on 14 November 2025.

Dr Priya Palimkar gave a comprehensive overview of the functions of the heart and dependent organs and how our daily activities are affecting the overall health of our body. She also elaborated on the startling facts about heart diseases in India, especially the sudden increase in heart diseases among the youth; how lifestyle changes are affecting the heart; lack of space, facilities, and exercise culture; hereditary issues; types of chest pains; heart attack symptoms; how to respond and remedies to be followed; heart attack treatments; FFR; intravascular OCT; and modifiable and non-modifiable risk factors. Dr SE Talole, Sc 'H' was also present during the session. The event concluded with a vote of thanks by Mr Atul Chavan, Sc 'E'.





COURSES AT SSPL, DELHI

Acoustic Emission Technology: Its Application for Defence and Industries

Solid State **Physics** Laboratory (SSPL), DRDO, Delhi, organized a course on "Acoustic Emission Technology: Its Application for Defence and Industries" during 3-5 December 2025. The objective of the course was to educate, refresh, and familiarize the participants with the knowledge and understanding Acoustic **Emission** of (AE) technology, AE sensors and related instrumentation, and their applications for defence and industries. A total of 31

participants from different DRDO laboratories, such as CFEES, DRDL, CAS, CEMILAC, CISC, HQ, IDS Delhi, DYSL-SM, NMRL, and SFC, Jagdalpur, attended the course. The keynote address was

given by Dr M Patri, Chairman, CEPTAM. Other talks were delivered by eminent experts from esteemed institutions like IITs (Delhi, Madras, and Mandi) and industry experts.



Readout Electronics for Solid State Image Sensors

The SSPL, Delhi, organized a five-day course on "Readout Electronics for Solid State Image Sensors" during 17-21 November 2025. Expert lectures covering a wide spectrum of topics related to the design, testing, and applications of ROIC and associated driver electronics were delivered. Ms Nilima Singh, Sc 'F' was the Course Director, and Mr Arun Panwar, Sc 'E' was the Deputy Course Director.



Current and Futuristic MEMS Technologies for Defence Applications

The SSPL, Delhi, organized a course titled "Current and Futuristic MEMS Technologies for Defence Applications" during 12-14 November 2025 with the objective to inculcate a basic understanding of the device miniaturization technology and its requirement in developing futuristic smart defence sensors and systems. Ms Suma Varughese, OS & DG (MCC), graced the occasion and delivered

her address on the importance of sensors in defence. Eminent speakers were invited from DRDO laboratories, academic institutes, and industry, such as TBRL, ADE, R&DE (Engrs), SSPL, STARC, CMTI (Bengaluru), IIT Delhi, IIT Roorkee, IIT Hyderabad, and Delhi University, to deliver the lectures.





HR COORDINATORS' CONCLAVE 2025 AT NPOL

HR Coordinators' Conclave 2025 was organised by the Directorate of HRD (DHRD) in association with Naval Physical and Oceanographic Laboratory (NPOL), during 27-28 November 2025. The theme of the conclave was 'From Talent to Technology: InnovationThroughHR'.The event was inaugurated by Dr Mayank Dwivedi, OS & DG (HR). Delegates from various DRDO laboratories enthusiastically participated in in-depth deliberations on vital HR roles for organizational

success, HR-related issues, and best practices. NPOL organized

a technical facility visit of NPOL during the conclave.



COURSE ON FOOD SCIENCE AND TECHNOLOGY AT DIBT

of Bio-Defence Institute Technology (DIBT), defence Mysuru, organized a ten-day "Refresher Course in Food Science and Technology" during 1-12 December 2025. The course was attended by two ASC officers four Scientific Analysts from various Food Inspection Organizations (FIOs). Expert lectures were delivered on a wide range of topics including food principles of food processing and preservation, quality control, food standards and regulations, food supply chain management, cold chain management of animalbased products, ration technology and management, freeze drying, bio-defence, and food packaging. Sessions also covered storage of cereals and sugars under humid insect infestation conditions, control, food safety, and postharvest quality management of fruits and vegetables.

As part of the course, participants visited Karnataka Milk Federation (KMF) Dairy Unit; M/s Potential Bioengineering Pvt. Ltd.; M/s ITC Ready-to-Eat (RTE) Plant; and the Central Food Technological Research Institute (CFTRI), Mysuru. These visits provided valuable insights into milk processing, production

testing and quality control of bio-plastics, bulk production of RTE foods, and grain milling and processing technologies.

The valedictory session was presided over by Dr R Kumar, Centre Head, DIBT. The event concluded with a vote of thanks by Dr V Vasudevan, Sc 'F' & Course Director.





TECHNOLOGY DEMONSTRATION ON GAP ON FRUIT CULTIVATION (ORANGE & KIWI)

A technology demonstration of agri-allied techniques under civil-military fusion program was conducted during 23-25 November 2025 by Defence Research Laboratory (DRL), Tezpur, in remote border villages of Arunachal Pradesh. Trainingdemonstration cum-field GAP on fruit cultivation (orange and kiwi) was imparted to the beneficiary farmers of Boha, Chug, Dirang Basti, Khellong, Namthung, Zimthung, Bamrock, and Yewang border villages of Dirang and Kalaktang blocks of West Kameng district of Arunachal Pradesh. A total of 72 farmers participated in the event. Farmers were acquainted

with different aspects of orange and kiwi cultivation, viz. grafting, orchard management, training & pruning, pest mamagement, etc. Agro-inputs were also distributed to the farmers.



LECTURES ON POSH ACT AT ITR

An awareness program on the prevention of sexual harassment in the workplace was organised in the Integrated Test Range (ITR), Chandipur, on 24 November 2025. Shri K Suchendar, OS & Director ITR, inaugurated the program. A talk on "A Push Towards POSH" was delivered by Shri Vikram Srinivasan, Visiting Faculty and Senior Lawyer, Madhusudan Law University, Cuttack, Odisha. He highlighted various aspects of the Sexual Harassment of Women Workplace at (Prevention. Prohibition and Redressal) Act, 2013, commonly known as the POSH Act. The talk was aimed at

updating and awakening knowledge the the employees about definition the of sexual harassment, international legislative frameworks, responding to and addressing sexual harassment, its mental impact, landmark judgments, challenges in implementation, and recommendations for enhancement.

The program was organised by Shri M Goswami, Sc 'G' & his team.





ASME FELLOWSHIP

Chand Jain, Prakash Outstanding Scientist, Defence Research & Development Laboratory (DRDL), Hyderabad, has been elected as a Fellow of the American Society of Mechanical Engineers (ASME) in recognition of his outstanding engineering achievements and contributions to the engineering profession. Dr Jain has made significant contributions in the areas of structural design of missile systems. Dr Jain is an alumnus of the IIT-Roorkee, the IIT-Bombay, and a BOYSCAST Fellow from Penn State University, USA. Dr Jain is the recipient of several awards, including the HJ Bhabha Award and the Biren Roy Space Science Award. He is also a Fellow of the Aeronautical Society of India and a Fellow of the Telangana Academy of Sciences.

The ASME honors a select few key contributors globally for their outstanding achievements and innovations in the field of mechanical engineering. ASME, founded in 1880, is an association of nearly 72,000 engineers from 130 countries who are dedicated to advancing the global engineering profession.



RAJBHASHA ACTIVITIES

HINDI FORTNIGHT AT DRL

Defence Research Laboratory (DRL), Tezpur, organized Hindi Fortnight during 27 October 2025 to 10 November 2025 to promote interest and proficiency in the Hindi language. Dr Pronobesh Chattopadhyay, Sc 'G' & Officiating Centre Head, addressed the gathering and emphasized the importance of communicating in Hindi. Competitions such as

poetry recitation, translation, dictation, digital poster making,

typing, etc., were held, making the event interesting.



HINDI WORKSHOP AT ISSA

Institute for Systems Studies & Analyses (ISSA), Delhi, conducted a one-day Hindi Workshop on 25 November 2025. Shri Devendra Mewari, Senior Writer and Science Fictionist, delivered a talk on 'Hindi Mein Vigyan Lekhan aur Anuvaad kee Kalaa'. During his talk, he spoke about 200 years journey of science writing in the Hindi language, discussed the

contribution of Thomson, Devkinandan Khatri, Rahul Sankrityayan, Manohar Shyam Joshi, etc. and highlighted the importance of creativity in the translation of science writing. He also conducted practice session on common and specific errors in the translation of scientific texts into Hindi.





NAG TIBBA NATURE STUDY AND TREKKING EXPEDITION

The Institute of Technology Management (ITM), Mussoorie, under the aegis of DRDO Sports Board, organised a nature study and trekking expedition in the Nag Tibba area in Himalayan range of Garhwal division during 22-24 November 2025. Fifty-seven participants from various DRDO laboratories participated enthusiastically in the campaign, representing nearly all levels of the hierarchy: technical, scientific, admin and allied.

Shri Sanjay Dwivedi, (DoP, DRDO HQrs) and Shri Satya Prakash Dobhal, Director, ITM, flagged off the campaign and participated in the campaign as participants. The main objective



of the campaign was to gradually develop team spirit among the participants, develop decision making ability in times of adversity, to establish harmony with nature, etc. and the campaign was successful in achieving its objectives. A tree plantation drive was also organised during the trekking expedition to Nag Tibba, situated at an altitude of about 3000 m, in which all the participants planted a tree each at this height in the mountains.

DRDO SOUTH ZONE LAWN TENNIS TOURNAMENT

Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru, organized DRDO South Zone Lawn Tennis tournament during 10-14 November 2025. Dr Rituraj Kumar, OS & Director, CAIR, inaugurated the event. Forty players participated from south zone laboratories. The team championship was won by CAIR and ADE got runner up. Women's single and runner-up competition were won by Smt Smita Srivastava, Sc 'F' and Ms Mamta Singh, Tech 'A', from CAIR. Men's single was won by LRDE's Lt. Col Vinod NP and runner-up by Senthil Kumar, Sc'F' from CABS. Women's Double was won by Priyanka Meena, Sc 'E' and Annu Kumari, TO 'A', CABS and runner-up Meenakshi, Sc 'G', ADE and Shiba Hizkal, Sc 'F', ADE

respectively. Men's doubles was won by Senthil Kumar, Sc 'F', CABS and Dr Angappan, Sc 'G', ADA and runner-up by Lt. Col. Vinod, LRDE and Anil P, TO 'C', CAIR. Shri

Prasanna Kumar, OS & Associate Director, CAIR, distributed the prizes to the winners and runners. The event concluded with vote of thanks by Dr S Sahoo, Sc 'F', CAIR.





VISITORS TO DRDO LABORATORIES

CAIR, Bengaluru

The Union Home Secretary of India, Shri Govind Mohan visited the Centre for Artificial Intelligence and Robotics (CAIR), Bengaluru, on 21 November 2025. The dignitary was received by Dr Rituraj Kumar, OS & Director, CAIR. Besides briefing on CAIR projects, the dignitary witnessed the live demonstration of indigenous technologies such as robotic platform, satellite image analysis and IndiGIS technologies.



Maj. Gen. SS Balaje, Director General Remount Veterinary Corps (RVC) and Head of Service, along with his team, visited the Defence Institute of Physiology and Allied Sciences (DIPAS), Delhi, on 12 November 2025. He was received by the Director, DIPAS Shri Devakanta Pahad Singh, OS & Director, DIPAS, followed by deliberations and interactions with senior scientists. He visited the DIPAS exhibition hall, where all the Army-related products and technologies were demonstrated.

DMRL, Hyderabad

On 23 October 2025, Defence Metallurgical Research Laboratory (DMRL), Hyderabad, hosted an industrial visit for fourteen (14) Air Technical Officers, accompanied by one Directing Staff member from the Naval Institute of Aeronautical Technology (NIAT), Kochi. Dr Ashish Pathak, Sc 'E',





emphasized the laboratory's key accomplishments and underscored the importance of collaboration between research institutions and the Tri-Services in advancing defence technologies.

The officers got engaged in insightful discussions with the scientists and demonstrated keen interest in the laboratory's cutting-edge research, products, and technologies.

